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Publication

Big Data and Digitalization in Dentistry: A Systematic Review of the Ethical Issues

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Big Data and Internet and Communication Technologies (ICT) are being increasingly implemented in the healthcare sector. Similarly, research in the field of dental medicine is exploring the potential beneficial uses of digital data both for dental practice and in research. As digitalization is raising numerous novel and unpredictable ethical challenges in the biomedical context, our purpose in this study is to map the debate on the currently discussed ethical issues in digital dentistry through a systematic review of the literature. Four databases (Web of Science, Pub Med, Scopus, and Cinahl) were systematically searched. The study results highlight how most of the issues discussed by the retrieved literature are in line with the ethical challenges that digital technologies are introducing in healthcare such as privacy, anonymity, security, and informed consent. In addition, image forgery aimed at scientific misconduct and insurance fraud was frequently reported, together with issues of online professionalism and commercial interests sought through digital means